



# The Influence of Digital Literacy and Learning Motivation on Learning Outcomes of Generation Z

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**Abstract.** The purpose of this study is (1) to find out the effect of digital literacy on learning outcomes, (2) decide the impact of learning inspiration on learning results, and (3) decide the impact of computerized proficiency and learning inspiration on learning results. This inquire about strategy is included in quantitative inquire about with comparative causal inquire. The data collection techniques use questionnaires and documentation. The sampling technique used was simple random sampling. The population in this research were students from Faculty of Teacher Training and Education, UNIPMA. The sample in this study was 334 respondents. Data were analyzed using variable tests, pretests and hypothesis tests. Its results research show that (1) Digital literacy has a positive and significant effect on learning outcomes (2) learning motivation has a positive and significant effect on learning outcomes (3) digital literacy and learning motivation has a positive and significant effect on learning outcomes.

**Keywords:** Digital Literacy, Learning Motivation, Learning Results, Generation Z

## 1 Introduction

Agreeing to Republic of Indonesia Law Number 20 of 2003, instruction can be a cognizant and orchestrated effort to form a learning environment and learning get ready so that understudies viably make their potential to have sincere and otherworldly quality, self-control, identity, insights, respectable ethics, and the fundamental aptitudes: himself, society, country, and state. The significance of learning incredibly impacts a person's future, the capacities that a individual has after accepting learning, which incorporates cognitive, full of feeling, and psychomotor viewpoints, counting their learning results or can be seen through appraisal works out that point to induce evidentiary data that will show up the level of students' capacities in learning. Finish learning targets.

Education is closely related to the success of learning in the classroom as a determining factor for educational success. Of course, the success of learning is a learning strategy in the school that depends on an educator using approaches, models, methods, and learning strategies. According to (Elya umi Hanik, 2020), digital

literacy is a skill that, in addition to the ability to use technology, information and communication tools, also includes social skills, learning ability, attitude, critical and creative thinking, and the ability to inspire. Digital. Nowadays the spread of information in the world is very fast. Data sources can come from anywhere. Journalists write news stories and then share them on social networks to spread information quickly. Not only reports written by journalists are often shared through social media, but also news and information written by ordinary people.

Learning motivation is one of the most important parts of learning. Motivation consists of intrinsic and extrinsic motivation; a highly motivated student has a good effect on the smoothness of learning because the student will have the desire to learn by himself or with encouragement from outside. Students with high motivation will be diligent and active in their learning activities and have strong confidence, concentration, and understanding. Therefore, students with high learning motivation will run effectively during the learning process, meaning they can achieve good learning success. This is explained by (Lagili et al., 2019): student learning motivation is the general driving force of the student, which creates lecture-study activities that ensure continuity and guide learning activities. The student's learning outcomes are reflected in the student's abilities, he explains (Hasiuban, 2015) that learning results are the aptitudes that understudies have after accepting learning. These aptitudes incorporate cognitive, full of feeling and psychomotor perspectives. Learning results can be seen through appraisal exercises that point to supply prove of a student's capacity to attain learning destinations.

Adjusted to the characteristics of Generation Z among university students, gen Z is predicted to be such a generation is more educated and understands more about technology because Generation Z is the first generation that grew up in the internet world, and developed an understanding of the availability of information and the world of technology. As explained by (Nawawi, 2020), generation Z uses multimedia facilities and various kinds of technology daily. They use different electronic devices such as smartphones, laptops, and computers. This means that the information they need can be easily obtained. The emergence of Generation Z amidst today's technological advances needs to be responded to and received feedback from the world of education. The concept of education applied to Generation Z will no longer be suitable, considering its characteristics. In the current era of technological development, educators are starting to provide appropriate learning media to improve conducive learning.

Other learning problems, such as digital literacy in general, have occurred in various tertiary institutions; one is UNIPMA, abbreviated as UNIPMA, the University of the Indonesian Teachers' Association in Madiun, founded on May 17, 1976. Based from the results of previous observations from researchers with several students Within the scope of Faculty of Teacher Training and Science, it was found that students stated that there was a lack of understanding regarding digital literacy, and many students were passive during teaching and learning because the lack of motivation and digital literacy during online learning could affect UNIPMA student learning outcomes.

Another problem is the need for more learning motivation for UNIPMA students, which is also caused by two factors, namely intrinsic and extrinsic factors. The low desire to learn from students is driven by students' need for more motivation during learning. This is proven based on the results of initial observations of the students inside the Faculty of Teacher Training and Education, UNIPMA. It was found that student motivation to learn was relatively low because students avoided studying hours for other activities. This poor student perception results in low motivation and monotonous learning, which will cause learning to be ineffective.

According to the results of initial observations carried out by researchers, it can be concluded that learning motivation and digital literacy of students within the scope of Faculty of Teacher Training and Education, UNIPMA can influence student learning outcomes due to the many obstacles to students' internet access and their lack of learning motivation, this can affect learning outcomes or skills. The students learned. Therefore, researchers will conduct research titled "The Influence of Digital Literacy and Learning Motivation on Generation Z."

## **2 Method**

The research method used is quantitative. According to (Moleong, 2019), quantitative inquiry about could be a investigate strategy based on the logic of positivism, which is utilized to investigate certain populaces or tests, whereas information collection employments investigate rebellious and factual quantitative information examination by testing hypotheses that the researcher has determined. The research population was all 2035 students from the Faculty of Teacher Training and Education, UNIPMA. The sampling technique used is simple random sampling. Sampling was done according to the Slovin formula, resulting in a research sample of 334 respondents. Data collection instruments utilize surveys and documentation. Information examination procedures comprise of ordinariness test, multicollinearity test, heteroscedasticity test, linearity test, different direct relapse examination, t test, and F test .

## **3 Results & Discussion**

### **3.1 The impact of digital literacy on the learning outcomes of generation Z**

This research shows that the test results of the digital literacy variable (X1) partially have a significant effect on learning outcomes (Y). That depends the t-test results: the calculated t-value is 7.195, and the significance level is less than 5%, namely 0.00.

This shows the higher one the students' digital literacy skills, the higher the learning outcomes of UNIPMA students, while the influence of digital literacy (X1) learning outcomes (Y) is 22.3%.

**Table 1.** T-Test

Model	Coefficients				
	Unstandardized Coefficients	Std. Error	Beta	T	Sig.
1 (Constant)	-.090	2702		-.033	.974
Literasi Digital	.223	.031	.391	7.195	.000
Motivasi Belajar	.193	.046	.229	4.211	.000

Source: Data that has been processed by SPSS version 26

The results of this study are consistent with studies (Putri & Supriansyah, 2021) that it has a positive impact on digital literacy (X1) and learning outcomes of generation Z students. Apart from that, this study is also consistent with studies done by (Slamet et al., 2021). The research results show that digital literacy can significantly affect learning success.

Based on the comes about of this investigate, it appears that advanced proficiency features a positive and noteworthy impact on the learning results of Era Z understudies. Judging from the research results on this variable, it was found that the dominant indicator is electronic security. This proves that high digital literacy must also pay attention to exploiting positive needs, as well as increasing efficiency in the use of digital media, based on research results conducted, which shows that digital literacy skills must be improved, including both hard and soft skills. Skills that students have so that their digital literacy abilities can increase and not be misused.

According to (Daroin & Andriani, 2021), suitable form of study for generation Z is to utilize technology according to current developments, which is communication. This research also shows that digital literacy skills are very important and needed by Generation Z in the current era of industrial revolution 4.0. As Generation Z's digital literacy grows, it will be easier to find work in the future because digital literacy is directly related to the skills needed to get a job in the current technological era. Colleges ought to too offer assistance understudies progress their capacities in utilizing computerized media innovation, give an understanding of the operation and how to get it, filter, and process information contained in digital content, and provide education on the importance of communicating via the internet.

We may conclude that students' learning results are significantly and favorably impacted by digital literacy. Apart from that, a high level of Student learning results can be positively impacted by digital literacy; the development of students' abilities must also be improved. Therefore, universities should also be able to help students improve their abilities in using digital media technology, as well as provide an understanding not only of operation but also how to understand, filter, and process information contained in digital content and also provide education on the importance of communicating via the internet.

### 3.2 The effect of learning motivation on the learning outcomes of Generation Z

This study shows that test results the learning motivation variable (X1) partially has a significant impact on learning outcomes (Y). This is based on the t-test results; the calculated t-value is 4.211, and the significance level is less than 5%, namely 0.00. This shows that the higher a student's digital literacy skills, the higher the learning outcomes of PGRI Madiun University students, while the influence of digital literacy (X1) on learning outcomes (Y) is 19.3%.

Table 2.

Coefficients					
Unstandardized Coefficients			Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig
1 (Constant)	-,090	2702		-,033	,974
Literasi Digital	,223	,031	,391	7.195	,000
Motivasi Belajar	,193	,046	,229	4.211	,000

Source: Data that has been processed by SPSS version 26

These results align with the studies done (Saputra et al., 2018), who says that motivation can function as a driver of interest and willingness to achieve achievement. With diligent effort and based on motivation, someone who studies will certainly increase their understanding. How motivated a student is will have a big impact on how much they comprehend about learning.

The results of this study support the theory and previous research (Rianita et al., 2020) that learning motivation influences learning outcomes, which means that if you provide strong motivation in learning, it will is positive and important impact on the results—learning so that optimizing learning objectives in the form of learning outcomes can be achieved. Learning motivation refers to the desire to learn to complete tasks and get optimal learning results. Thus, students become spiritually motivated and start studying immediately and leave other work because it is their duty and responsibility. When engaged in a learning task, a motivated student will learn faster, take fewer breaks, and be less likely to get distracted than someone unmotivated.

Student learning motivation significantly influences the digital literacy skills of Faculty of Teacher Training and Education, UNIPMA, supported by the findings that the learning motivation variable in this research is more dominant than the indicator of curiosity. This can be shown from the findings that the majority of students at UNIPMA always want to try to get good grades; their low Cumulative achievement index results prove this. When the respondent gets a good final exams score, the respondent will continue studying for the final exam of the next semester. Apart from that, respondents have a great curiosity, which can be shown by their attitude of always wanting to solve problems. So, by providing strong learning motivations in learning, It will positively and significantly impact students' learning results, enabling the achievement of learning objectives in the form of learning outcomes.

### 3.1 The impact of digital literacy and learning motivation on the learning outcomes of generation Z

The results of this study proved it, the test results for the digital literacy variables (X1) and learning motivation (X2) simultaneously had a significant effect on learning outcomes (Y). This result is based on the f-test results, namely, the calculated f value is 71.009, and the significance level is 5%, namely 0.000.

**Table 3.**

#### ANOVA<sup>a</sup>

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	559,189	2	279,594	71,009	,000 <sup>b</sup>
Residual	1303,293	331	3,937		
Total	1862,482	333			

Source: Data that has been processed by SPSS version 26

This demonstrates that learning results increase with increasing levels of digital literacy and learning motivation Faculty of Teacher Training and Education at UNIPMA. The influence of digital literacy (X1) and learning motivation (X2) on learning outcomes (Y) is 30%. These results align with research conducted by (Putri & Supriansyah, 2021) and (Rianita et al., 2020) The utilization of digital literacy and the provision of learning motivation during online lectures are crucial, as they have a notable influence on learning outcomes. Students and lecturers are still far from the goal because it is caused by students' lack of understanding in using technology, limited internet access, and lack of motivation among students to study. Apart from that, digital literacy skills and providing strong learning motivation for students will positively and significantly influence student learning outcomes so that students can maximize their learning outcomes. Thus, digital literacy skills and strong learning motivation encourage students to optimize their learning outcomes.

The reality that occurs in the field shows that students want to study because they want to get a good Cumulative achievement index; apart from that, some students later want to continue their higher education, even if it is a small amount. Supported by the findings on learning outcome variables and learning motivation in this research, electronic security indicators and curiosity are more dominant. This can be shown from the findings that students can use technology correctly and are highly curious. So, the higher the digital literacy and learning motivation of students, the higher the learning outcomes. The influence in this research can be caused by literacy skills and motivational encouragement created from the internal and external environment in the learning process. So, using digital literacy and providing strong learning motivations will positively and The impact on students' learning outcomes is substantial, ensuring that the desired learning objectives are successfully met through these outcomes.

## 4 Conclusion

Based on the hypothesis testing and analysis, the following conclusions are drawn:

1. Digital literacy affects student learning outcomes. The results obtained in testing the first hypothesis were accepted, which means that digital literacy partially it has a positive and significant impact on learning outcomes because digital literacy skills are very helpful in online learning during the pandemic to improve good learning outcomes.
2. Learning motivation has an impact on students' learning outcomes. The results of testing the second hypothesis were accepted, meaning this learning motivation partially positively and significantly affected learning outcomes because encouraging student learning motivation can improve satisfactory learning outcomes.
3. Digital literacy and learning motivation affect student learning outcomes. The results of testing the third hypothesis were accepted, which means that digital literacy and learning motivation simultaneously have a positive effect on learning outcomes, because digital literacy and learning motivation are important for improving learning outcomes.

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